UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF: 5HR-12

07 OCT 1988

Mr. Vincent Koers
Danville Citizens for the Control
of Hazardous Waste Injection
603 West Woodlawn
Danville, Illinois 61832

Re: Allied Signal, Inc.
ILD 005 463 344

Dear Mr. Koers:

This is in response to your September 22, 1988, letters to William E. Muno and me regarding the subject facility.

I have to disagree with the conclusions in the first and third paragraphs of your letter to me about the permit process under the Resource Conservation and Recovery Act (RCRA). I know of no Federal regulation that requires a RCRA facility assessment before the issuance of either a UIC or RCRA permit. It may be a policy or a common practice but it is not a regulation. Also, since interim status is temporary, the RCRA permit would be necessary to continue hazardous waste disposal after interim status termination.

Regarding your request for a time frame for the RCRA corrective action program, I can only tell you that this Agency is in the process of evaluating hundreds of facilities. Therefore, at this time I cannot advise you of the specific time frame for action in this matter.

Your other September 22, 1988, letter to me asks if the loss of interim status inspection report will be used in evaluating the Allied facility. We will use all relevant information to make the evaluation, including such information in that report. Thank you for your observations on that report which you included in your letter addressed to Mr. Muno. We will include your observations among the files to be used in evaluating the subject facility.

If you would like to discuss this further by telephone, please contact Mr. Jonathan Adenuga of my staff at (312) 886-7954.

Sincerely,

Joseph M. Boyle

Joseph M. Boyle, Chief
IL/IN Technical Enforcement Section

5HR-12

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Sincerely,

Joseph M. Boyle, Chief
IL/IN Technical Enforcement Section

bcc: J. Adenuga ✓
IL. Permits Section Chief, RPB ✓

5HR-12:Joe:lr:9/28/88:#39

10/6/88 ✓

	TYP.	AUTH.	IL/IN TECH. ENF. SEC.	MI/WI TECH. ENF. SEC.	OH/MN TECH. ENF. SEC.	IL/MI/WI ENF. PROG. SECTION	IN/MN/OH ENF. PROG. SECTION	RCRA ENF. BR. CHIEF	O. R. A.D.D.	WMD DIR
INIT. DATE	9/29/88	JMB 9/29/88	JMB 9/29/88					JMB for WEM 10/6/88		

l. The annulus under the packer will be filled with oil following each mechanical integrity test.

m. Blow out preventor. A blow out preventor shall be installed prior to breakdown of the wellhead during mechanical integrity tests requiring removal of the wellhead.

27. Contingency Plan. The Permittee shall follow the contingency plan outlined in Attachment F. (35 I.A.C. 702.160)

28. Continued Releases at Permitted Facilities. Issuance of this Underground Injection Control (UIC) permit does not release the Permittee from complying with applicable requirements of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 USC., Sec. 6901 et seq., commonly known as RCRA), and the 1984 Hazardous and Solid Waste Amendments (HSWA). In particular, Section 3004(u) of HSWA requires owner/operators of hazardous waste treatment, storage and disposal facilities seeking permits to take corrective action for all releases of hazardous waste or hazardous waste constituents from any solid waste management unit (SWMU), which includes the injection well. If at any time, the USEPA should determine that a release of hazardous waste or hazardous waste constituents is taking, or has taken place from the well or the injection zone, corrective action requirements and a schedule for their completion may be imposed under Section 3004(u) and 3008(h) HSWA. This permit does not constitute a RCRA permit-by-rule for any part of the facility except the injection well, and, further, does not release the Permittee from complying with the corrective action requirements for other SWMUs at the same facility, nor any other RCRA and HSWA regulations applicable to units and operations at this facility.

29. Restrictions on Future Land Use of Hazardous Facilities. (35 I.A.C. 724.219 & 220) Within 90 days after final plugging and abandonment, the owner or operator must submit to the Compliance Monitoring Section, Division of Land Pollution Control, to the County Recorder, and to any local zoning authority a survey plat indicating the location of the disposal well with respect to permanently surveyed bench-marks. The plat must be prepared and certified by a professional land surveyor. In addition, the owner or operator must submit to the Agency, the County Recorder and any local zoning authority a record of the type, location and quantity of hazardous waste placed in each well. For wastes disposed before October 12, 1983, the owner or operator must

identify the type and quantity of the wastes to the best of their knowledge and in accordance with any record which has been kept. Any changes in the type, location or quantity of hazardous wastes disposed within the facility which occurred after the survey plat and record of wastes had been filed must be reported to the agencies where original plat and record were filed.

The owner of the property where a disposal well is located must record, in accordance with Illinois law, a notation on the deed to the facility property, or on some other instrument normally examined during a title search, to notify, in perpetuity, any potenial purchaser of the property of the following:

a. the land has been used to dispose hazardous waste;

b. the steel plate and cement plug in the well must never be disturbed or removed;

c. the survey plat and record of the type well location, and quantity of hazardous waste has been filed with the Illinois Environmental Protection Agency, the County Recorder, and any local zoning authority.

Larry FYI

ILD 005 463 344
3

RESPONSIVENESS SUMMARY
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:

THE PERMIT APPLICATION FROM
ALLIED CORPORATION
FOR AN UNDERGROUND INJECTION CONTROL (UIC)
WELL #1 IN DANVILLE

This responsiveness summary documents issues raised by the public concerning a permit application from the Allied Corporation to operate an underground injection control well in Danville.

The Illinois Environmental Protection Agency (IEPA) conducted a public hearing on Wednesday, December 17, 1986, at 7:00 p.m. in Room 302, Vermilion County Courthouse, Danville. The purpose of this hearing was to receive oral and written comments on the permit application. The hearing record closed on January 12, 1987 (originally it was to close on December 27, 1986, but the applicant requested an extension of the time date).

Background

Allied Corporation is in the business of producing chlorofluorocarbons for use as refrigerant gases in coolers, chillers, and dispering gases for a variety of other commerical uses.

At the Danville facility, Allied Corporation has been operating an industrial waste injection well, Class 1 type, since 1973. The liquid waste injected into this well contains contaminated storm water, hydrochloric acid vent scrubber discharge, boiler blowdowns, waste softening equipment backflush, waste hydrochloric acid, and cooling water blowdown. The waste consists of the following key components: hydrochloric acid, hydrofluroic acid, organic material, inorganic chloride salts, and arsenic.

Agency Decision

Following IEPA review of the permit application and issues raised during the public comment period, the Agency has issued a final permit to Allied Corporation to operate underground injection well WDW-1 at the Danville facility. The effective date of the permit is May 4, 1987. The expiration date of the permit is May 4, 1991. At the discretion of the corporation, Allied may submit a new permit application, but must do so at least 180 days before the expiration date of the effective permit.

ISSUE: HISTORY

Question: HOW LONG HAS THE WELL BEEN IN OPERATION?

Response: The well has been operating for 14 years, since March 1973.

Question: IS IT TRUE THAT THIS WELL SUFFERED A MAJOR FAILURE IN 1976. IN THIS FAILURE THE WELL HAD A 12 HOUR BLOWOUT OF CARBON DIOXIDE GAS AND CARRIED ALONG WITH THE CARBON DIOXIDE, IN ALL PROBABILITY, HAZARDOUS AND TOXIC MATERIAL. WHAT STEPS WILL THE IEPA TAKE TO PREVENT SUCH AN OCCURANCE?

Response: Yes the incident did occur. It is believed that generation of carbon dioxide as a reaction product was the cause of this blowout. For these reasons the Agency has limited the waste stream in their permit to an action level of 7 percent by weight total acidity and a temperature of 90°F. If action levels are exceeded the permittee will investigate to determine: 1) the cause of the exceedance of action level, 2) is any additional waste streams are present, and 3) if any action is needed to prevent further exceedance of these levels. The results of the investigation will be reported to the Compliance Monitoring Section, Division of Land Pollution Control with the next monthly reports after the action levels are exceeded. Also, the permittee will take the necessary steps to prevent any well failures that could be caused by exceeding any action level and notify the Agency of these problems.

Allied has also taken steps to neutralize the corrosive nature of the waste. This neutralization will be in operation by April 1, 1988 and the pH of the waste stream will be reduced to a range of 5 to 10 with this pH range the acid of the waste stream will be kept below 5 percent by weight and the temperature level will be removed. With these conditions it is unlikely a blowout will occur.

Question: WHY DID ALLIED CORPORATION SPEND HUNDREDS OF THOUSANDS OF DOLLARS TO PROCEED DRILLING TO 6,688 FEET?

Response: Allied originally designed and drilled their injection well to reach the Mt. Simon Formation because it is used in Illinois and Indiana as a excellent formation for waste injection. Allied assumed it would be a better formation than the Eminence-Potosi Formation. Unfortunately the Mt. Simon was not as permeable as anticipated. This created higher injection pressures than the well was designed to handle. The higher injection pressures caused the injection tubing to separate, subsequently, causing a well failure. Allied recompleted the well in the Eminence-Potosi Formation because of the greater permeablility and porosity than the Mt. Simon Formation.

ISSUE: INJECTED FLUID

Question: HOW MUCH FLUID IS INJECTED INTO THE WELL?

Response: The permit states that Allied will inject a maximum rate of 120 gallons per minute of liquid waste.

Question: WHY IS THE WASTE HAZARDOUS?

Response: The waste that Allied injects into the well is hazardous because of its corrosivity and arsenic content. No other hazardous waste can be injected.

Question: WHICH INORGANIC AND ORGANIC COMPOUNDS HAVE BEEN CONFIRMED IN THE WASTE THAT IS TO BE INJECTED?

Response: The injected waste typically consists of hydrochloric acid, hydrofluoric acid, arsenic, methylene chloride, chloroform, carbontetrachloride, trichlorofluoromethane, 1,1,2,2-tetrachloro-1, 2-Difluoroethane, Benzoic acid, Bromodichloromethane, and Acetone.

Question: DOES ALLIED HAVE THE RIGHT TO PUT A CONCENTRATION OF 35% ACID INTO THE WELL AT CERTAIN TIMES DURING THE MONTH?

Response: No, the final permit states that an action level of 7 percent by weight total acidity can be injected into the well up until March 31, 1988. If action levels are exceeded the permittee will investigate to determine: 1) the cause of the exceedance of action level, 2) is any additional waste streams are present, and 3) if any action is needed to prevent further exceedance of these levels. The results of the investigation will be reported to the Compliance Monitoring Section, Division of Land Pollution Control with the next monthly reports after the action levels are exceeded. Also, the permittee will take the necessary steps to prevent any well failures that could be caused by exceeding any action level and notify the Agency of these problems. On April 1, 1988 the maximum allowable concentration of total acidity will drop to 5 percent by weight.

ISSUE: GEOLOGY

Question: EACH YEAR THERE ARE HUNDREDS OF EARTHQUAKES IN CENTRAL ILLINOIS. THEY ARE CALLED MICRO-QUAKES, MOST OF THEM DO NOT REGISTER ON THE RICHTER SCALE. THESE MICRO-QUAKES CAUSE SHIFTING OF THE GROUND AND INDUCE HORIZONTAL DISPLACEMENT OF THE WELL BORE AND THEY CAN BREAK THE WELL IN A WAY THAT THE OPERATOR MAY NEVER BE AWARE OF. WHAT DOES THIS AFFECT HAVE ON THE WELL?

Response: There is no evidence of any faults in the Danville area. A fault refers to a fracture zone along which there has been displacement of the sides relative to one another parallel to the fracture. The nearest faults are approximatley 100 miles to the northwest of Danville. According to St. Louis University, there have been no indication of any earthquakes or microquakes occurring in the Danville area. Therefore, the possibility of an earthquake to occur and cause displacement in the well bore is improbable.

Question: I AM CONCERNED ABOUT THE MT. SIMON SANDSTONE WHICH WAS THE ORIGINAL FORMATION INTENDED TO BE USED BY ALLIED CORPORATION. IT IS A QUARTZITIC SILICA RICH SANDSTONE THAT IS NOT SUBJECT TO DISSOLUTION FROM ACID. FURTHERMORE, IT IS OVERLAIN BY A THICK IMPERMEABLE CAP ROCK THE EAU CLAIR FORMATION, WHICH IN THIS AREA, IS MORE THAN 700 FT. THICK, AND UNDOUBTEDLY THAT IS THE REASON WHY THE ORIGINAL WELL WAS DRILLED INTO THE DEEP SANDSTONE. WHY IS THE NEW WELL NOT BEING EXTENDED INTO THE MT. SIMON SANDSTONE?

Response: The Mt. Simon Formation is an excellent formation for injection in many areas of Illinois and the mid-west. Unfortunately the Mt. Simon Formation beneath Allied did not have the good permeability and porosity as in other areas. The Eminence-Potosi Formation is more receptive to injection of waste than the Mt. Simon Formation, as evidenced by the lack of pressure required to inject the waste into the Eminence-Potosi. The Eminence-Potosi Formation also has a good impermeable cap rock (Prairie du Chien Formation) and above this formation is the Maquoketa Shale that is beneath the deepest underground source of drinking water. The Agency feels there is no need to move the injection zone down to the Mt. Simon because the Eminence-Potosi Formation is a better injection zone at this location.

ISSUE: WELL OPERATION

Question: IS WASTE FROM ANY OTHER FACILITY BEING DISPOSED IN THIS WELL?

Response: There is no evidence, nor does it appear likely, that waste from any other facility is being disposed of in this well. On the permit application, the Allied Corporation has indicated that it intends to operate the well for waste generated on-site. The final permit does not allow Allied to inject waste other than those in the permit application.

Comment: A SPECIAL CONDITION NEEDS TO BE EXAMINED REGARDING TEMPERATURE OF THE LIQUID AS ITS BEING INJECTED INTO THE WELL?

Response: The Agency feels that temperature of the waste should be controlled and monitored. Therefore, the Agency has set an action level on temperature of 90°F on the waste being injected and monitored on a continuous basis. If action levels are exceeded the permittee will investigate to determine: 1) the cause of the exceedance of action level, 2) is any additional waste streams are present, and 3) if any action is needed to prevent further exceedance of these levels. The results of the investigation will be reported to the Compliance Monitoring Section, Division of Land Pollution Control with the next monthly reports after the action levels are exceeded. Also, the permittee will take the necessary steps to prevent any well failures that could be caused by exceeding any action level and notify the Agency of these problems. After the waste is neutralized to 5% total acidity by weight the temperature level will be removed.

Question: KEROSENE IS USED IN THE ANULUS TO MONITOR WHETHER THERE IS A LEAK IN THE CASING. HOWEVER, THERE IS NO PRESSURE ON THIS KEROSENE. SHOULDN'T THE KEROSENE BE PRESSURIZED?

Response: The kerosene is pressurized and maintained at 235 ±20 pounds per square inch (psig) in the annulus between the tubing and the long string casing. This pressure is obtained from back pressure caused from the natural formation pressure and injection pressures. A pressure of 50 psig shall be maintained on the 9 5/8 inch and 7 inch annulus (outer annulus).

Comment: I AM CONCERNED ABOUT THE VIRTUAL CERTAINTY THAT CARBON DIOXIDE GAS IS FORMING. GAS IMMEDIATELY RISES AS HIGH AS IT CAN COME IN THE GEOLOGIC SEQUENCE, PRESUMABLY IN THIS CASE, TO THE UPPER PORTION OF THE POTOSI FORMATION, WHICH THE WASTE IS BEING INJECTED, AND WHEN IT RISES TO THE ROOF OF THAT FORMATION AGAINST A SEMI-PERMEABLE OR IMPERMEABLE BARRIER, THEN THE GAS WILL MIGRATE UP SLOPE WHICH IN THIS AREA OF ILLINOIS IS NORTH AND NORTH EASTERLY, AT A SLOPE OF ABOUT 25 FEET TO THE MILE.

Response: The Agency feels that most of the carbon dioxide (CO_2) formed stays dissolved in the formation/waste waters. The final permit will impose action levels on temperature and percent acid going into the well below a level which research has demonstrated CO_2 gas will not form. If action levels are exceeded the permittee will investigate to determine: 1) the cause of the exceedance of action level, 2) is any additional waste streams are present, and 3) if any action is needed to prevent further exceedance of these levels. The results of the investigation will be reported to the Compliance Monitoring Section, Division of Land Pollution Control with the next monthly reports after the action levels are exceeded. Also, the permittee will take the necessary steps to prevent any well failures that could be caused by exceeding any action level and notify the Agency of these problems.

Allied has also taken steps to neutralize the corrosive nature of the waste. This neutralization process will be in operation by April 1, 1988 and the pH of the waste stream will be reduced to a range of 5 to 10. With this pH range the acid of the waste stream will be kept below 5 percent by weight. Therefore, it is unlikely that CO_2 gas will accumulate at these limits set in the final permit.

Question: IS IT TRUE THAT ALLIED CORPORATION IS IN THE PROCESS OF BUYING A BLOWOUT PROTECTOR TO AVOID FUTURE BLOWOUTS?

Response: Allied is required to install a blowout preventor every time the well is opened for safety reasons.

Question: HOW DOES THE WELL CASING WORK?

Response: The general function of all casing strings are: a) To furnish a permanent borehole of precisely known diameter, and to keep the well bore from collapsing during subsequent drilling, completion, and producing operations; b) To allow segregation of formation behind the pipe, which prevents water movement between aquifers through the well bore; and c) For attaching the necessary surface valves and connections to the well.

Question: A SPECIAL CONDITION TO BLEND AND NEUTRALIZE WASTE PRIOR TO INJECTION IN ORDER TO ATTAIN A TIGHTER PH RANGE SHOULD BE IMPLEMENTED NOW. THIS PERMIT MIGHT INCLUDE A DELAYED ENFORCEMENT DATE TO ALLOW ALLIED A REASONABLE PERIOD TO ACQUIRE AND INSTALL THE REQUIRED EQUIPMENT. THE PH RANGE SHOULD BE LOOSE AT THE START AND TIGHTENED IN STEPS EVERY FEW MONTHS, AS ALLIED ACQUIRES THE ABILITY TO COMPLY. THE GOAL SHOULD BE TO ATTAIN AN IEPA DETERMINED LIMIT OF PERHAPS A 4 AND A RANGE OF 5 TO 9. JUST HOW FAR THIS NEEDS TO GO REQUIRES SOME STUDY. BUT DON'T WE NEED TO KNOW THE BOTTOM LINE BEFORE WE START?

Response: Allied is planning on installing a neutralization system to neutralize the acids in the waste stream. The pH range will be limited to 5 to 10. The waste neutralization system will be in operation by April 1, 1988. Furthermore, the Agency has set a maximum acid concentration of 5% by weight for the injected waste.

Comment: A SPECIAL CONDITION NEEDS TO BE EXAMINED ON THE NEED FOR TEMPERATURE LIMITS AS THERE IS EVIDENCE THAT A MAJOR FACTOR IN SUCH EXPLOSIONS CAN BE CAUSED IN PART BY, HIGH TEMPERATURES. THERE ARE MEANS OF CONTROLLING THIS, WITH STORAGE AND BLENDING, AMONG OTHERS.

Response: An action level on temperature of 90°F is imposed on the injected waste. If action levels are exceeded the permittee will investigate to determine: 1) the cause of the exceedance of action level, 2) is any additional waste streams are present, and 3) if any action is needed to prevent further exceedance of these levels. The results of the investigation will be reported to the Compliance Monitoring Section, Division of Land Pollution Control with the next monthly reports after the action levels are exceeded. Also, the permittee will take the necessary steps to prevent any well failures that could be caused by exceeding any action level and notify the Agency of these problems.

This temperature level along with an action level of 7% by weight total acidity, should be sufficient to keep the CO_2 in the liquid phase and therefore, prevent any blowout from occuring.

Comment: A SPECIAL CONDITION SHOULD REQUIRE THE PERMITTEE TO MAINTAIN A SUMMARY LOG OF SIGNIFICANT WELL EVENTS, UPDATED ANNUALLY. TODAY SIGNIFICANT EVENTS, SUCH AS FAILURES, INSTANCES OF NONCOMPLIANCE, BLOWOUTS, CASING FAILURES, AND SO ON, WHILE REPORTED AS INDIVIDUAL EVENTS, BECOME BURIED IN POUNDS OF CORRESPONDENCE, AND CAN BECOME LOST IN THE FILES, FIGURITIVELY, IF NOT ACTUALLY. EACH YEAR'S SUMMARY OF FROM TWO TO THREE PAGES COULD BE ADDED TO THE ACCUMULATED REPORT, AND RESUBMITTED ANNUALLY, AND THE ACTUAL HISTORY OF THE WELL WOULD BE MORE READILY AVAILABLE TO ALL INTERESTED PARTIES.

Response: The Agency requires that Allied submit monthly reports. These requirements are found in the permit condition B-5 and they incorporate any workover, changes in equipment, and maintenance that Allied has done on the injection well.

Comment: ATTACHMENT "B", DESIGNATING PROCEDURES FOR MECHANICAL INTEGRITY TESTING, SECTION 17, PROVIDED A 3% DROP IN 30 MINUTES SHOULD TRIGGER CORRECTIVE ACTION. THIS IS QUITE PERMISSIVE, AND SHOULD BE REVIEWED AND TIGHTENED.

Response: Corrective action means action that will be taken at the time of a well failure. The procedures Allied will follow if they have a well failure can be found in Attachment F of the final permit. The Agency has changed the condition to 3 percent change in pressure in a 60 minute period will require corrective action. The 3 percent change in pressure is to allow fluctuations due to temperature changes. If the tubing or casing were to have a leak the pressure drop would be much greater than 3 percent in a 60 minute period. The pressure test is conducted at pressures higher than normal operations.

ISSUE: MONITORING WELLS

Question: DOES THE IEPA REQUIRE WELL MONITORING OF UNDERGROUND SOURCES OF DRINKING WATER?

Response: The IEPA is requiring Allied to submit an approvable groundwater monitoring plan or waiver on the deepest underground sources of drinking water (USDW) which contain less than 10,000 milligrams per liter of total dissolved solids. Allied has 45 days after the effective date of this permit to submit this plan or waiver.

Question: IS NATIVE GROUNDWATER TRAPPED?

Response: The Agency feels that the confining zones are impermeable and migration of injected waste through the confining zone is highly unlikely. The Agency is requiring Allied to submit an approvable groundwater monitor plan or waiver to monitor any migration of fluids into and pressure build-ups in the deepest underground sources of drinking water.

ISSUE: OWNERSHIP OF THE WELL

Comment: STATE LAW VERY CLEARLY PROVIDES THAT IN THE EVENT OF THE WELL OWNED BY ONE PERSON AND OPERATED BY ANOTHER THAT THE PERMIT BE SUBMITTED BY THE OPERATOR, BUT MUST BE SIGNED BY THE OWNER. IN THIS CASE THERE IS A 13 5/8 " DIAMETER CIRCLE OF LAND IN THE MIDDLE OF A FARM FIELD THAT FOR EVERY INTENT AND PURPOSE IS FOR ALLIED CORPORATION TO CONVEY TO AN OUTSIDE FINANCE INTEREST. THIS WAS DONE IN 1975, AND SINCE THAT TIME ALLIED CORPORATION HAS NOT OWNED THE WELL, IN FACT, ALLIED HAS REPRESENTED THEMSELVES AS THE OWNERS FOR REPEATED REISSUANCE OF A PERMIT THAT DID NOT REQUIRE PUBLIC HEARING, LIKE THIS ONE REQUIRES.

Response: The issue of ownership of the site and the subject underground injection well does not appear to be relevant to the permit review at hand. Upon reviewing various exhibits and documents provided in the record, the discrepancy between the legal descriptions for this site and the Project remains. Although the intent for this site and the Project remains. Although the intent of the Parties may have been the transfer of title for the site and its appurtenances from the Company to the Authority, the documents on file with the County Recorder of Deed contains a legal description which differs from the legal description included in the Lease. Such inconsistencies may give reason to question the basis of the financial arrangements and necessary security between the Company and the Authority; however this discrepancy does not affect the permit application under review concerning the underground injection well. As provided in the Company's Exhibit I, the surveyed location has been certified as the actual site location and has been added in the terms and conditions of the final permit for the use and operation of the subject underground injection well.

ISSUE: LIABILITY

Question: WHO WILL PAY FOR CLEANUP PROBLEMS AT THIS WELL AFTER THE COMPANY IS NO LONGER HERE?

Response: Allied Corporation stated at the public hearing that they intend to honor their responsibility and federal law requires that Allied remain liable even if they no longer own the well site.

Question: HAVE FUNDS BEEN SET ASIDE TO PAY FOR CLEANUP SHOULD IT OCCUR?

Response: The law and the regulation pursuant to the law require that funds be set aside for the plugging and abandonment of the well. There are no regulations that require a permittee to have adequate funds put aside for cleanup.

Question: HAS MONEY BEEN SET ASIDE FOR THIS CLOSURE?

Response: Yes, in the form of a corporate guarantee. The law allows for companies such as Allied, who has substantial net worth to make a showing through a certified public accountant, that they are indeed accountable for any expenditure and will provide annual updates of those reports. Allied must annually recertify that they are able to provide money for closure.

Question: WHAT'S THE AMOUNT IN THE CURRENT CLOSURE ESTIMATES?

Response: Approximately $65,000 is set aside for plugging the injection well.

Question: IF ALLIED GOES BANKRUPT, WHO WILL BE RESPONSIBLE FOR THE WELL AND ANY ASSOCIATED CLEANUP IS NECESSARY?

Response: USEPA and the Illinois EPA are currently administering the Superfund Program to handle cleanups at bankrupt and abandoned sites.

Miscellaneous

Comment: WERE THERE ANY DANVILLE SITING REGULATIONS THAT WOULD HAVE REQUIRED THE APPROVAL OF THE WELL BY THE DANVILLE CITY PLANNING COMMISSION.

Response: Allied Corporation does not have to have siting permission as Allied is an on-site generator and does not accept waste for injection from any off-site source.

Question: DOES ALLIED SUPPORT THE CONCEPT OF MINIMIZING THE AMOUNT OF WASTE THAT'S INJECTED INTO THE GROUND THROUGH PROCESS SUBSTITUTION OR MODIFICATION?

Response: The Resource Conservation and Recovery Act, particularly the 1984 amendment, require Allied to enter into a waste minimization program. Allied has a waste minimization program at the Danville facility. Basically, the way the plan is developed, each and every waste generated must include a description of how the waste can be reduced and plans for attempting to reduce the quantity of waste generated.

GM:st:1358g,spl-10

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:
5HR-12

14 SEP 1988

Mr. Vincent Koers
Danville Citizens for the Control
of Hazardous Waste Injection
603 West Woodlawn
Danville, Illinois 61832

Re: Allied-Signal, Inc.
ILD 005 463 344

Dear Mr. Koers:

Thank you for your August 15, 1988 letter regarding Allied-Signal, Inc.

My staff has reviewed our files to determine Allied's standing with respect to two laws governing Allied's management of its hazardous waste. As you may know, on April 22, 1988, the Illinois Environmental Protection Agency (IEPA) issued a draft permit to Allied for operation of its hazardous waste injection well. This type of permit would correspond to the permit required by the Federal law known as the Safe Drinking Water Act. In the meantime, and even after IEPA were to issue a final injection well permit, another Federal law, the Resource Conservation and Recovery Act (RCRA), continues to apply to Allied. Under RCRA, Allied is temporarily allowed to continue disposing of its hazardous waste in its injection well. The temporary permission is known as interim status. This status ends when a final RCRA permit becomes effective. When a RCRA permit is proposed in the future for Allied, it will contain provisions designed to address whatever corrective action is necessary to respond to all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time waste was placed in such a unit.

Another option available to the United States Environmental Protection Agency (U.S. EPA) is its RCRA authority to issue a corrective action order for such releases. I am not allowed to disclose any specifics about whether or not the U.S. EPA is contemplating the filing of an enforcement action against any person. However, I can describe how U.S. EPA is generally implementing the corrective action enforcement program under the Resource Conservation and Recovery Act (RCRA). IEPA and U.S. EPA are in the process of evaluating all treatment, storage and disposal facilities that have not received a RCRA permit. One possible outcome of such evaluation is the issuance of corrective action orders to those facilities where releases of hazardous waste have been documented. The scope of these orders is likely to include a full scale study to document the magnitude and extent of all releases of hazardous waste into the environment, a screening of proven technologies to remedy any such releases, and a comparison of remedial alternatives that could be

used to mitigate endangerment and provide adequate protection to the environment and human health.

Whether U.S. EPA proposes a RCRA corrective action permit, or finalizes a corrective action order, an opportunity for public comment will be made available. U.S. EPA expects interested citizens such as yourself to take advantage of this opportunity.

If you have any questions, please contact Mr. Jonathan Adenuga of my staff at (312) 886-7954.

Thank you again for your interest in this matter.

Yours sincerely,

Joseph M. Boyle, Chief
IL/IN Technical Enforcement Section
RCRA Enforcement Branch

5HR-12:Adenuga:lr:9/8/88:#43

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Thank you again for your interest in this matter.

Yours sincerely,

Joseph M. Boyle

Joseph M. Boyle, Chief
IL/IN Technical Enforcement Section
RCRA Enforcement Branch

Allied Chemical

P.O. Box 13
Danville, Illinois 61832
(217) 446-4700

October 3, 1984

EPA REGION V
RCRA Activities
P.O. Box A3587
Chicago, Illinois 60690

SUBJECT: RCRA Permit Application
Allied Chemical, Danville Works
EPA I.D. #ILD005463344 G, TSD, UIC, PA

Dear Sir:

The Danville Works plant produces fluorocarbon refrigerants 12 & 11 and a by-product, hydrochloric acid. It currently operates under RCRA interim status since we generate, store and dispose, via an on-site deep well, of hazardous waste. Recent administrative changes both within the Illinois Environmental Protection Agency (IEPA) and the plant will enable us to legally operate without a RCRA permit or interim status.

On February 1, 1984, the Illinois UIC Program was approved by the U.S. EPA. Our deep well, which is used exclusively to dispose of waste water that is generated on-site, is permitted by the Illinois UIC program. Therefore per Subpart A, Section 265.1 (c) of the Hazardous Waste and Consolidated Permit Regulations, our disposal operation is exempted from RCRA permitting.

With that, if we accumulate our hazardous waste on-site according to the specified regulations for 90 days or less, our entire operation will not require a RCRA permit or interim status. Our original Part A permit application which was submitted on November 14, 1980, described our hazardous waste storage facilities. Those facilities included a drum storage area, a waste tank trailer, a waste collection sump and four waste storage tanks. Since that time #38 waste storage tank was taken out of service.

We are currently making arrangements with CECOS International to transport and dispose of wastes which may be stored in drums or in the waste tank trailer on a less than 90 day basis, negating the need for a RCRA permit for these facilities.

Two of our three remaining waste storage tanks (#33 & 34) and the waste collection sump contain waste on a continuous basis. These tanks are normally receiving and discharging waste continuously, preventing the residence time of any single tankful of waste material from reaching a 90 day period. These tanks are used in the following manner:

Process waste water is routed to the waste collection sump via a process sewer system. The capacity of this sump is estimated at 20,000 gallons. From here the waste is usually pumped directly to #33 and #34 tanks which are interconnected by piping. The capacity of each tank is also 20,000 gallons. Tank #40 is used as a standby tank and does not normally receive or store any waste water. From #33 and #34 tanks the waste is continuously pumped into the deep well for disposal. The well is only shut down for repairs, preventative maintenance and scheduled integrity tests. The discharge rate from the storage tanks is controlled to maintain the tank waste water levels at 25% of capacity.

The amount of waste water deepwelled is typically 65,000 gallons per day. The combined capacity of #33 and #34 waste tanks is 40,000 gallons. Therefore, tank contents are obviously overturned on a daily basis. However, we prefer a continuous operation of the deep well and maintain waste water in these tanks to allow a constant flow to the well. Although the tanks are not normally emptied, based on the nature of our operation, we feel they should be considered short term (less than 90 day) storage tanks. During those instances when #40 tank is needed, the waste is drained back into the sump and subsequently pumped to #33 or #34 tank as soon as conditions permit. In all cases #40 tank should be emptied within a 90 day period.

Discussions with IEPA personnel indicate they are in agreement with us concerning this subject and they recommended we make a formal application to U.S. EPA to remove these tanks from our Part A permit application.

For the previously mentioned reasons, we request that Danville Works be reclassified as a generator and a short term (less than 90 days) storage facility. I hereby withdraw our Part A permit application which was submitted on November 19, 1980.

Your prompt response would be greatly appreciated. Please call if you have any questions.

Sincerely,

RL Purgason

Richard L. Purgason
Plant Manager

RLP/GMK/drd

copy: David C Jansen
Illinois Environmental Protection Agency
Field Operations Section
Division of Land Pollution Control
4500 South Sixth Street Road
Springfield, Illinois 62706

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Discussions with IEPA personnel indicate they are in agreement with us concerning this subject and they recommended we make a formal application to U.S. EPA to remove these tanks from our Part A permit application.

For the previously mentioned reasons, we request that Danville Works be reclassified as a generator and a short term (less than 90 days) storage facility. I hereby withdraw our Part A permit application which was submitted on November 19, 1980.

Your prompt response would be greatly appreciated. Please call if you have any questions.

Sincerely,

RL Purgason

Richard L. Purgason
Plant Manager

RLP/GMK/drd

copy: David C Jansen
Illinois Environmental Protection Agency
Field Operations Section
Division of Land Pollution Control
4500 South Sixth Street Road
Springfield, Illinois 62706

bcc: J. E. Cooper - MTO
G. M. Kady - DVW ✓

Allied Chemical

P.O. Box 13
Danville, Illinois 61832
(217) 446-4700

August 1, 1984

EPA Region V
RCRA Activities
P. O. Box A3587
Chicago, Illinois 60690

SUBJECT: **RCRA PERMIT APPLICATION**
Allied Chemical, Danville Works
EPA I.D. # ILD005463344 G, TSD, UIC, PA

Dear Sir:

Enclosed is a revised copy of the subject permit application. Although the plant process has not changed since submission of our original application on 11-14-80, we have revised item IV (list of hazardous waste) of Form 3. This revised list now includes hazardous wastes which are not normally handled at this facility, but due to abnormal circumstances may be handled at some point in the future.

Please contact George Kady of my staff if you have any questions.

Sincerely,

Richard L. Purgason
Plant Manager

RLP:cmm

cc: David J. Jansen
Field Operations Section
Division of Land Pollution Control
4500 South Sixth Street Road
Springfield, Illinois 62706

ILLINOIS EPA
Environmental Protection Agenc
2200 Churchill Road, Springfield, Illinois 62706
217/782-6760

N. L.

FOLLOW UP & SIZE ITEMS WE CONFORM & ABIDE BY WHAT WE SAID WE WOULD DO. SIZE THAT APPROVAL PEOPLE GET COP

NC

April 16, 1980

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WELL INJECTION PERMIT

Land /Noise Pollution Control
Allied Chemical Corporation
Vermillion County
Supplemental Permit: 1979-UIC-3-OP-3

Date issued: April 16, 1980

Allied Chemical Corporation
Post Office Box 13
Danville, Illinois

Attention: Mr. W. C. A. Schrader, Plant Manager

Gentlemen:

Supplemental Permit is hereby granted to the above designated permittee, Allied Chemical Corporation whose plant is located in Danville, Illinois, to close waste holding pond which is a part of the UIC facilities in the plant area and which is under the operation permit #1979-UIC-3-OP. The operation permit was granted to the permittee to operate water pollution control facilities which consist of one deep waste injection well and related appurtenances.

1. The waste holding pond shall be closed within 180 days of the issuance of this supplemental permit.

2. The waste holding pond shall be closed in accordance with the plans and documents submitted to the Agency to obtain this supplemental Permit.

3. Monitoring of ground water will be conducted as described in the submitted documents in accordance with the applicable State Statutes and regulations.

This supplemental permit is issued in accordance with written request, by Mr. W. C. A. Schrader, Plant Manager at the Danville Plant of Allied Chemical Corporation, dated February 6, 1980 and March 5, 1980.

All inquiries should be directed to Mr. Rauf Piskin, Manager, Hydrogeology Unit, Technical Operations Section, Division of Land/Noise Pollution Control.

All Special Conditions and Standard Conditions on the Operation Permit issued are also applicable to this Supplemental permit unless specifically deleted or revised in this permit.

Very truly yours,

Thomas E. Cavanagh, Jr.

Thomas E. Cavanagh, Jr.
Manager, Permit Section
Division of Land/Noise Pollution Control

RP:mkg

cc: Illinois State Water Survey
Illinois State Geological Survey
Illinois Department of Mines and Minerals
ORSANCO, Executive Director